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10/500,287

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07/11/2008

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EXAMINER

CHEN, WEN YING PATTY

ART UNIT

PAPER NUMBER

2871

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--|--------------------------------------|--|
| Office Action Summary | Application No. 10/500,287 | Applicant(s) SASAKI ET AL. | |
| | Examiner WEN-YING PATTY CHEN | Art Unit 2871 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2 and 5-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-9 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The Amendment filed on Mar. 10, 2008 has been entered. Claims 1, 2 and 5-9 remain pending in the current application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 5-6 and 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coates et al. (US 6867834) in view of Kim et al. (US 688598) further in view of Meyer et al. (US 6773766).

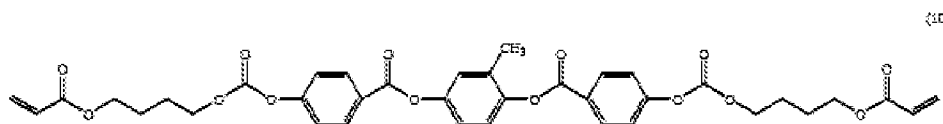
With respect to claim 1 (Amended): Coates discloses in Figure 3 a polarizing plate with optical compensation function, the polarizing plate comprises a polarizing layer (element 2) and an optically compensating layer, wherein

the optically compensating layer comprises an optically compensating A-layer (element 4; A-plate) comprising a polymer film (Column 12, lines 52-53 and Column 1, lines 57-62), and an optically compensating B-layer (element 6; highly twisted A-plate) comprising a cholesteric liquid crystal layer (Column 11, lines 24-27), the optically compensating A-layer being on a side of the optically compensating B-layer opposed to the polarizing layer (as shown),

wherein the optically compensating A-layer meets the requirement of $20nm \leq Re \leq 300nm$ (Column 24, lines 61-62),

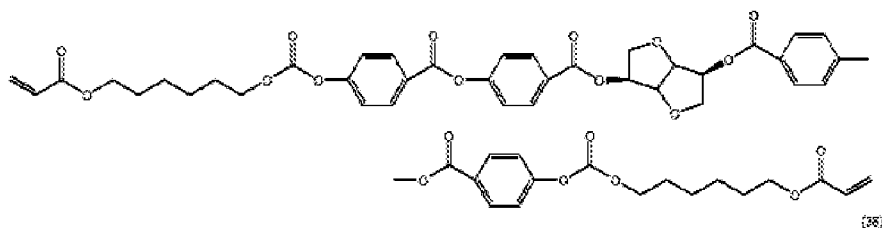
and wherein a selective reflection wavelength range of the cholesteric liquid crystal layer has an upper wavelength not larger than 350nm (Column 11, lines 38-42).

Coates is silent on the optically compensating A-layer (A-plate) satisfying the condition of $1.2 \leq Rth / Re$ and that the cholesteric liquid crystal layer is formed from a liquid crystal monomer represented by the chemical formula:



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and a polymerizable chiral dopant represented by the chemical formula:



However, Kim discloses the use of an A-plate having the conditions of $20nm \leq Re \leq 300nm$ and $1.2 \leq Rth / Re$ (Column 5, lines 9-10 and Claim 7) and Meyer discloses in Column 11 line 65 through Column 18, the use of a cholesteric liquid crystal layer comprises of liquid crystal monomer and a polymerizable chiral dopant having the chemical formula shown above.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a polarizing plate as taught by Coates wherein the A-plate is of an A-plate having the retardation values as taught by Kim, such that the viewing angle can be improved and wherein the cholesteric liquid crystal layer comprises of liquid crystal monomer and a polymerizable chiral dopant having the chemical formula as taught by Meyer et al., since Meyer et al. teach that such cholesteric liquid crystal layer exhibits excellent optical properties such as wide range of light reflection property (Column 12, lines 36-42).

As to claim 5: Coates further discloses in Column 18 lines 27-33 that the highly twisted A-plate can be formed of an alignment layer and a base, therefore the polarizing plate comprises at least one of an alignment layer and a base.

As to claim 6: Coates further discloses in Column 1 lines 56-62 that the polymer film is either a stretched film or a liquid crystal film.

As to claims 8 and 9: Coates discloses in Figure 3 an image display comprising the polarizing plate wherein the polarizing plate is arranged on at least one surface of the liquid crystal cell.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Coates et al. (US 6867834), Kim et al. (US 6888598) and Meyer et al. (US 6773766) in view of Kameyama et al. (US 6342934).

Coates, Kim and Meyer disclose all of the limitations set forth in claim 1. Coates further discloses in Column 12 lines 37-42 that adhesive layers are used for laminating the layers of the polarizing plate, but Coates is silent on that the adhesive layer is a pressure-sensitive adhesive layer.

However, Kameyama teaches the in Column 14 line 50 through Column 15 line 19 of using pressure-sensitive adhesive layer as an interconnecting layer between the optical elements in a liquid crystal display device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to construct a polarizing plate as taught by Coates, Kim and Meyer wherein a pressure-sensitive adhesive layer is used for bonding as taught by Kameyama, since Kameyama teaches that by using pressure-sensitive adhesive layers for bonding optical elements helps to prevent changes in the refractive index generated by photoelastic deformation (Column 14, line 50 through Column 15, line 19).

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

None of the prior arts either alone or in combination fairly teach or suggest that an angle formed by an absorption axis of the polarizing layer and a slow axis of the optically compensating A-layer is not smaller than 85° and not larger than 95°.

Therefore, claim 2 is deemed non-obvious and inventive over the prior arts, thus is allowable.

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to WEN-YING PATTY CHEN whose telephone number is (571)272-8444. The examiner can normally be reached on 8:00-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David C. Nelms can be reached on (571)272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WEN-YING PATTY CHEN
Examiner
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7/03/08

/Andrew Schechter/
Primary Examiner, Art Unit 2871